***CLASS COPY – DO NOT WRITE ON.***

CW 48: Factoring Day 3!

**Honors Geometry**

**How can I take the trinomial and turn it into the product of two binomials?**

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| **Problem Set A**  Complete each factored form:  Factor the trinomial complete:   1. How can you ensure that your factored answer is correct? 2. Sasha says that can be factored into . Prove whether or not she is correct. | **Problem Set B**    2. A bush cricket jumps from the ground into the air with an initial vertical velocity of 4 feet per second. The equation that gives the cricket’s height (in feet) as a function of the time (in seconds) since it left the ground is . 3. After how many seconds is the cricket 3 inches off the ground? (Use this equation to help you ) 4. Does the cricket jump higher than 3 inches? Explain your reasoning! |
| **Problem Set C**   1. A rectangle’s length is 13 meters more than 3 times its width. The area is 10 square meters. What is the width?   *Vertical motion model describes the height of a projectile object as a function of time. The height h (in feet) of a projectile can be modeled by where t is time the object has been in the air, v is the initial vertical velocity (in feet per second), and s is the initial height of the object (in feet).*   1. A started armadillo jumps straight into the air with an initial vertical velocity of 14 feet per second. 2. Write a model for the armadillo’s height above the ground. 3. After how many seconds does it take to land on the ground? | |